Patent Claims

1. Recombinant viral vector which contains an insert exhibiting the general structure

$tTA - intron^1 - TK^+ - TetO_7 - CMV^+ - intron^2 - transgene$

in which

$TetO_7$	is the heptamerized tetracycline operator
TK^+	is the minimal thymidine kinase promoter
tTA	is a nucleic acid sequence which encodes a fusion protein from the repressor protein inducible by tetracycline and the transcriptional activation domain of the Herpes simplex virus VP16,
CMV^+	is the minimal cytomegalovirus promoter and
Transgene	is a nucleic acid sequence which codes for a non-viral protein
$Intron^1$	is any desired non-encoding nucleic acid sequence with a length of O to approximately 1000 bp and
$Intron^2$	is any desired non-encoding nucleic acid sequence with a length of O to approximately 1000 bp.

2. Vector according to claim 1 characterized in that the insert is inserted into the viral vector genome in reverse orientation.

3. Vector according to claim 1 or 2 characterized in that the positions of tTA and transgene are inverted in the insert.

4. Vector according to claims 1 to 3 characterized in that the insert contains an additional lac repressor (lacR) between "CMV^+" and "$intron^2$" or between "$intron^2$" and "transgene".

5 Vector according to claims 1 to 4 characterized in that the transgene is a nucleic acid sequence encoding a fluorescence protein, luciferase, interleukin-12 (IL-12), interleukin-18 (IL-18), interleukin-2 (IL-2), tumor necrosis factor α (TNF-α) or interferon-γ (IFN-γ).

6. Vector according to claim 5 characterized in that IL-12 is a single chain interleukin-12.

7. Vector according to claims 1 to 6 characterized in that the virus is an adenovirus, an adeno-associated adenovirus (AAV), a retrovirus, in particular a human immunodeficiency virus (HIV), a Herpes simplex virus, a Hepatitis B virus or Hepatitis C virus.

8. Vector according to claims 1 to 7 characterized in that the insert is cloned into the E1 and/or the E3 region of a recombinant adenovirus.

9. Vector according to claims 1 to 8 characterized in that it is obtainable by homologous recombination of a viral plasmid and an expression plasmid with the nucleic acid sequence represented in SEQ ID NO:1, SEQ ID NO:2 or SEQ ID NO:3.

10. Expression plasmid with the nucleic acid sequence represented in SEQ ID NO:4 or SEQ ID NO:5.

11. Use of a plasmid according to claim 10 for the production of a vector according to claims 1 to 9.

12. Use of the vector according to claims 1 to 9 for the in vitro gene expression in eukaryotic cell lines.

13. Use of the vector according to claim 1 to 9 in the case of which "transgene" encodes a therapeutically effective protein, for the preparation of a medicament for gene therapy.

14. Use according to claim 13 in which the transgene is IL-2, IL-12, IL-18, TNF-α or INF-γ, and the gene therapy is the gene therapy of malignant diseases.

15. Use according to claim 14 characterized in that the malignant disease is a solid tumor.

16. Use according to claims 12 to 15 characterized in that the gene expression is regulated with doxycycline, tetracycline, oxytetracycline, chlorotetracycline, demeclocycline, methacycline or minocycline.

17. Use of the vectors according to claims 1 to 9 in which "transgene" encodes a reporter protein, for the detection of tetracycline or a derivative thereof in biological, food chemical or similar samples.

18. Use according to claim 17 characterized in that the derivative is doxycycline.